

ABSTRACT OF THE DISCLOSURE

Disclosed is a power semiconductor device,  
including a first semiconductor layer of a first  
conductivity type, a second semiconductor layer of the  
first conductivity type and a third semiconductor layer  
of a second conductivity type which are alternately and  
laterally arranged on the first semiconductor layer and,  
a fourth semiconductor layer of the second conductivity  
type selectively formed in the surface regions of the  
second and third semiconductor layers, a fifth  
semiconductor layer of the first conductivity type  
selectively formed in the surface region of the fourth  
semiconductor layer, and a control electrode formed on  
the surfaces of the second, fourth and fifth  
semiconductor layers, in which a layer thickness ratio  
A is given by the expression:

$$0 < A = t/(t + d) \leq 0.72$$

where t is the thickness of the first semiconductor  
layer, and d is the thickness of the second  
semiconductor layer.